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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Kyoko Yokoi

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EXAMINER

CHRISS, JENNIFER A

ART UNIT

PAPER NUMBER

1786

NOTIFICATION DATE

DELIVERY MODE

05/17/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

pto.phil@dlapiper.com

Office Action Summary	Application No. 10/522,519	Applicant(s) YOKOI ET AL.	
	Examiner JENNIFER A. CHRISS	Art Unit 1786	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 March 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 5-8, 10 and 11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 5-8, 10-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. The Applicant's Amendments and Accompanying Remarks, filed March 2, 2010, have been entered and have been carefully considered. Claims 5 and 7 are amended, claims 10 - 11 are added and claims 5 - 8 and 10 - 11 are pending. In view of Applicant's amendment to claims 5 and 7, the Examiner has revised the previously applied rejections below. In view of Applicant's amendments to claims 5 and 7, the Specification objection and the 35 USC 112, 1st paragraph rejection are withdrawn as detailed in the Office Action dated January 6, 2010. The invention as currently claimed is not found to be patentable for reasons herein below.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 103

3. Claims 1 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over the full English translation of Shioda et al. (JP 05-321159) in view of Streicher et al. (US 4,983,185).

Shioda et al. is directed to a colored suede-tone synthetic leather which has excellent durability to light and resistance to discoloration and fading (page 2, [0001]).

As to claims 1 and 7, Shioda et al. teach impregnating a fluffed polyester fiber substrate made of ultra-fine synthetic fibers with colored polyurethane (pages 2 - 3, [0002]). Shioda et al. teach using a black pigment to color the polyurethane (pages 4 -

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5, [0010 - 0014]) but note that the pigment can be used as a main coloring material or a hue correction coloring material and can be used along with other coloring materials (pages 5 and 6, [0012 - 0015]). Shioda et al. teach that the ultra-fine fiber can have a denier of 0.5 or 0.56 dtex (page 8, [0022]). The Examiner submits that the pigments would be between the fibers as it is present in the form of a colored polyurethane which is impregnated into the fabric.

Shioda et al. teach the claimed invention above but fails to specifically teach that the polyurethane contains at least one each of yellow, red and blue pigments selected from the group consisting of diketopyrrolopyrrole, anthraquinone, perylene, perynone, quinacridone, azo, polyazo, condensed azo, imidazolone, phthalocyanine, isoindoline, indigo, thioindigo, azomethine, azomethine-azo, dioxazine, indanthrone, flavanthrone and pyranthrone.

Streicher et al. is directed to dyeing of leather with pigments (Title). Streicher et al. note that the pigments create a leather with good lightfastness (column 1, lines 10 – 20). Streicher et al. teach that the leather can be treated with individual pigments but also with mixtures of pigments. Preferably, the leather is dyed with a mixture of yellow, red and blue pigments, which gives rise to brown shades (column 5, lines 64 - 69). Streicher et al. note that the process makes it possible to obtain leather which has excellent levelness, depth of shade, brilliance and high lightfastness, wetfastness and migration fastness properties (column 6, lines 1 - 5). Streicher et al. note that the pigments may be selected from various pigments such as mono-azo pigments,

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anthraquinone pigments, thioindigo pigments, azomethine-azo pigments, quinacridone pigments and dioxazine pigments (column 2, lines 60 - 69 and column 3, lines 1 - 5).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to also include yellow, red and blue pigments selected from mono-azo pigments, anthraquinone pigments, thioindigo pigments, azomethine-azo pigments, quinacridone pigments and dioxazine pigments motivated by the desire to create a suede sheet material having a natural brown color while exhibiting excellent durability to light and resistance to discoloration and fading.

Shioda et al. in view of Streicher et al. teach the claimed invention above but fails to teach that the infrared reflectance is 850 nm at 60% or more, the surface temperature during light irradiation is 105 C or lower, light fastness is class 3 or better, the discoloration ratio after reduction cleaning is 20% or less and the chroma is 10 or less. It is reasonable to presume that the above discussed properties are inherent to Shioda et al. in view of Streicher et al. Support for said presumption is found in the use of like materials (i.e. an artificial leather containing fibers of a similar linear density range impregnated with a polyurethane binder which is colored with red, blue and yellow pigments selected from the pigments of claims 5 and 7) which would result in the claimed properties. The burden is upon the Applicant to prove otherwise. *In re Fitzgerald* 205 USPQ 594. In addition, the presently claimed properties would obviously have been present once the Shioda et al. in view of Streicher et al. product is provided. Note *In re Best*, 195 USPQ at 433, footnote 4 (CCPA 1977).

4. Claims 6 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shioda et al. (JP 05-321159) in view of Streicher et al. (US 4,983,185) as applied above, and further in view of Pedain et al. (US 3,867,350).

Shioda et al. in view of Streicher et al. teach the claimed invention above but is silent to the use of a polycarbonate-based polyurethane.

Pedain et al. relates to polyurethane urea elastomers based on polycarbonate macrodiols which have the advantage of being less of a physiological hazard, that are more resistant to common solvents and require less emulsifiers and dispersion aids (Title and Abstract). The reference teaches the use of the resin for the production of coatings applied to substrates such as leather and artificial leather (column 6, lines 20-31).

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the resin of Shioda et al. in view of Streicher et al. and provide it with the polycarbonate based polyurethane of Pedain et al. with the motivation of using an elastomer that is less of a physiological hazard, that is more resistant to common solvents and require less emulsifiers and dispersion aid as disclosed by Pedain et al. (Abstract).

5. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over the full English translation of Shioda et al. (JP 05-321159) in view of Yamada et al. (US 5,540,998).

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Shioda et al. is directed to a colored suede-tone synthetic leather which has excellent durability to light and resistance to discoloration and fading (page 2, [0001]).

As to claims 1 and 7, Shioda et al. teach impregnating a fluffed polyester fiber substrate made of ultra-fine synthetic fibers with colored polyurethane (pages 2 - 3, [0002]). Shioda et al. teach using a black pigment to color the polyurethane (pages 4 - 5, [0010 - 0014]) but note that the pigment can be used as a main coloring material or a hue correction coloring material and can be used along with other coloring materials (pages 5 and 6, [0012 - 0015]). Shioda et al. teach that the ultra-fine fiber can have a denier of 0.5 or 0.56 dtex (page 8, [0022]). The Examiner submits that the pigments would be between the fibers as it is present in the form of a colored polyurethane which is impregnated into the fabric.

Shioda et al. teach the claimed invention above but fails to specifically teach that the polyurethane is mixed with predetermined amounts and colors **consisting of** at least one each of yellow, red and blue pigments selected from the group consisting of diketopyrrolopyrrole, anthraquinone, perylene, perynone, quinacridone, azo, polyazo, condensed azo, imidazolone, phthalocyanine, isoindoline, indigo, thioindigo, azomethine, azomethine-azo, dioxazine, indanthrone, flavanthrone and pyranthrone.

Yamada et al. teach a solar heat-shielding coating composition which consists mainly of two kinds or more of pigments in such a manner as to yield a color of low lightness, particularly, achromatic black (Abstract). Yamada et al. teach that the coating has excellent resistance to yellowing, color retention and stability, gloss retention and

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chalking resistance and can maintain the heat shielding effect for a prolonged amount of time (column 3, lines 25 – 50 and column 4, lines 20 - 30). Yamada et al. teach that the pigment has a high solar heat radiation reflectance in the range of 350 - 2100 nm and has a good heat shielding effect (column 3, lines 50 - 60). Yamada et al. note that extensive studies that a pigment of low lightness particularly achromatic black obtained by an additive mixture of red, orange, yellow, green, blue and purple pigments provides an excellent effect compared to carbon black, iron black and copper chrome black pigments (column 3, lines 60 - 66). Particularly, Yamada et al. teach obtaining achromatic black by combining two or more pigments which are located opposite each other in the hue circle for example combining red and cyan or yellow and violet (column 4, lines 1 – 10). As discussed in the Examples, particularly Coating No. 1 and Coating No. 2, only pigments A, B and C are mixed together to create the coating (columns 6 - 8); where pigment A is FASTOGEN SUPER RED 7061B, pigment B is FASTOGEN SUPER BLUE GNPM-K and pigment C is SYMULER FAST YELLOW 4192 (column 6, lines 55 - 65). The Examiners submits that these pigments are selected from the listed pigments in the claims.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to color the polyurethane of Shioda et al. with a blend consisting of FASTOGEN SUPER RED 7061B, FASTOGEN SUPER BLUE GNPM-K and SYMULER FAST YELLOW 4192 (achromatic black) rather than a black based pigment as suggested by Yamada et al. motivated by the desire to create a synthetic leather having

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excellent yellowing resistance, color retention and good heat shielding and reflectance abilities.

Shioda et al. in view of Yamada et al. teach the claimed invention above but fails to teach that the infrared reflectance is 850 nm at 60% or more, the surface temperature during light irradiation is 105 C or lower, light fastness is class 3 or better, the discoloration ratio after reduction cleaning is 20% or less and the chroma is 10 or less. It is reasonable to presume that the above discussed properties are inherent to Shioda et al. in view of Yamada et al. Support for said presumption is found in the use of like materials (i.e. an artificial leather containing fibers of a similar linear density range impregnated with a polyurethane binder which is colored with pigments consisting of red, blue and yellow pigments) which would result in the claimed properties. The burden is upon the Applicant to prove otherwise. *In re Fitzgerald* 205 USPQ 594. In addition, the presently claimed properties would obviously have been present once the Shioda et al. in view of Yamada et al. product is provided. Note *In re Best*, 195 USPQ at 433, footnote 4 (CCPA 1977).

6. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over full English translation of Shioda et al. (JP 05-321159) in view of Yamada et al. (US 5,540,998) as applied above, and further in view of Pedain et al. (US 3,867,350).

Shioda et al. in view of Yamada et al. teach the claimed invention above but is silent to the use of a polycarbonate-based polyurethane.

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Pedain et al. relates to polyurethane urea elastomers based on polycarbonate macrodiols which have the advantage of being less of a physiological hazard, that are more resistant to common solvents and require less emulsifiers and dispersion aids (Title and Abstract). The reference teaches the use of the resin for the production of coatings applied to substrates such as leather and artificial leather (column 6, lines 20-31).

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the resin of Shioda et al. in view of Yamada et al. and provide it with the polycarbonate based polyurethane of Pedain et al. with the motivation of using an elastomer that is less of a physiological hazard, that is more resistant to common solvents and require less emulsifiers and dispersion aid as disclosed by Pedain et al. (Abstract).

Response to Arguments

7. Applicant's arguments filed March 2, 2010 have been fully considered but they are not persuasive.

8. Applicant argues that Shioda et al. do disclose the use of red and blue pigments along with perylene group, black pigment on page 9 of the English translation. Applicant indicates that the Examiner would only need to rely upon Streicher to teach the provision of a yellow pigment. The Examiner does not rely on this teaching in Shioda. As noted in the rejection, the Examiner relies on Shioda to teach using a black pigment to color the polyurethane (pages 4 - 5, [0010 - 0014]) but note that the pigment can be

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used as a main coloring material or a hue correction coloring material and can be used along with other coloring materials (pages 5 and 6, [0012 - 0015]). Therefore, the black pigment can be used along with other color combinations taught by the art, such as the color combination taught in Streicher. Applicant indicates that Comparative example 4 of the instant Specification uses black pigment, specifically of the perylene type and the black pigment has a higher discoloration ratio than any of the other inventive Examples. It should be noted that Comparative Example 4 only uses black pigment and not a combination of yellow, blue, red and black as taught by the combination of the applied prior art; the Examiner submits that a fair comparison has not been made and cannot be relied upon for a showing of unobviousness.

9. As to the newly introduced claims 10 and 11 which use the terminology "consisting of" to exclude other colors of pigments, please see the newly applied art above.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JENNIFER A. CHRISS whose telephone number is (571)272-7783. The examiner can normally be reached on Monday - Friday, 8:30 a.m. - 6 p.m., first Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Larry Tarazano can be reached on 571-272-1515. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jennifer A Chriss/
Primary Examiner, Art Unit 1786

/J. A. C./
Primary Examiner, Art Unit 1786